

Amendments to the Claims:

Please add new claims 17-23. Please amend claims 1 and 8-16 as follows.

The listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently Amended) A method for controlling receipt gain in a digital communication system including a transmitter and a receiver for communicating data on a telephone line comprising:
receiving an initialization signal through a hybrid circuit for a time period, wherein the initialization signal is output by the transmitter and transferred on the telephone line;
comparing an average magnitude value of the initialization signal received during the time period and a reference magnitude value;
adjusting at least one of a maximum magnitude value and a minimum magnitude value of a receipt signal when the average magnitude value of the initialization signal is different than the reference magnitude value; and
controlling the receipt gain such that the receipt signal is between the maximum magnitude value and minimum magnitude value of the receipt signal according to [[a]]the difference between the average magnitude value of the received initialization signal and the reference magnitude value.
2. (Original) The method of claim 1, wherein the receipt gain is decreased when the average magnitude value of the received initialization signal is larger than the reference magnitude value.
3. (Original) The method of claim 1, wherein the receipt gain is increased when the average magnitude value of the received initialization signal is smaller than the reference magnitude value.

4. (Original) The method of claim 1, wherein the digital communication system is an asymmetric digital subscriber line (ADSL).

5. (Original) The method of claim 4, wherein the initialization signal is a REVERB signal.

6. (Original) The method of claim 4, wherein the initialization signal is a MEDLEY signal

7. (Original) The method of claim 4, wherein the time period corresponds to 10 frames of signals.

8. (Currently Amended) A digital communication system for communicating using a telephone line comprising:

a hybrid circuit connected to the telephone line;

a transmitter for transmitting an initialization signal on the telephone line through the hybrid circuit; and

a receiver including an amplifier for amplifying a receipt signal and the initialization signal received through the hybrid circuit;

wherein the receiver controls gain of the amplifier according to a difference between a first an average magnitude value of an initialization signal received through the hybrid circuit at the receiver during a time period and a second reference magnitude value, and wherein the receiver adjusts at least one of a maximum magnitude value and a minimum magnitude value of the receipt signal when the average magnitude value of the initialization signal is different than the reference magnitude value.

9. (Currently Amended) The ~~method~~ system of claim 8, wherein the receiver decreases the gain of the amplifier when the average magnitude value of the received initialization signal is larger than the reference magnitude value.

10. (Currently Amended) The ~~method~~ system of claim 8, wherein the receiver increases ~~receipt~~ the gain when the average magnitude value of the received initialization signal is smaller than the reference magnitude value.

11. (Currently Amended) The ~~method~~ system of claim 8, wherein the receiver comprises:

a demodulator for demodulating the initialization signal[[s]] amplified by the amplifier;
and

a gain controller for storing the initialization signal[[s]] demodulated by the demodulator received during the time period [[time]] and for controlling the gain of the amplifier according to a difference between the average magnitude value of the stored initialization signal ~~demodulated~~ and the reference magnitude value.

12. (Currently Amended) The ~~method~~ system of claim 11, wherein the gain controller comprises:

a profiler for storing the initialization signal[[s]] demodulated by the demodulator during the time period;

a look-up table for defining compensation values corresponding to differences between the magnitude of the received initialization signal and the reference magnitude value;

a slicer for calculating an average magnitude value of the initialization signal[[s]] stored in the profiler and determining a compensation value according to a difference between the average magnitude value of the initialization signal and the reference magnitude value with reference to the look-up table; and

an automatic gain controller for controlling the gain of the amplifier according to the determined compensation value.

13. (Currently Amended) The ~~method~~ system of claim 8, wherein the digital communication system is an asymmetric digital subscriber line system.

14. (Currently Amended) The ~~method~~ system of claim 13, wherein the initialization signal is a REVERB signal.

15. (Currently Amended) The ~~method~~ system of claim 13, wherein the initialization signal is a MEDLEY signal.

16. (Currently Amended) The ~~method~~ system of claim 13, wherein the time period corresponds to 10 frames of signals.

17. (New) A digital communication system for communicating using telephone line comprising:

a hybrid circuit connected to the telephone line;

a transmitter for transmitting an initialization signal on the telephone line through the hybrid circuit; and

a receiver including an amplifier for amplifying the initialization signal received through the hybrid circuit;

wherein the receiver controls gain of the amplifier according to a difference between an average magnitude value of an initialization signal received through the hybrid circuit at the receiver during a time period and a reference magnitude value, wherein the receiver comprises:

a demodulator for demodulating the initialization signal amplified by the amplifier; and

a gain controller for storing the initialization signal demodulated by the demodulator received during the time period time and for controlling the gain of the amplifier according to a difference between the average magnitude value of the stored initialization signal and the reference magnitude value, wherein the gain controller comprises:

a profiler for storing the initialization signal demodulated by the demodulator during the time period;

a look-up table for defining compensation values corresponding to differences between the magnitude of the received initialization signal and the reference magnitude value;

a slicer for calculating an average magnitude value of the initialization stored in the profiler and determining a compensation value according to a difference between the average magnitude value of the initialization signal and the reference magnitude value with reference to the look-up table; and

an automatic gain controller for controlling the gain of the amplifier according to the determined compensation value.

18. (New) The system of claim 17, wherein the receiver decreases the gain of the amplifier when the average magnitude value of the received initialization signal is larger than the reference magnitude value.

19. (New) The system of claim 17, wherein the receiver increases the gain when the average magnitude value of the received initialization signal is smaller than the reference magnitude value.

20. (New) The system of claim 17, wherein the digital communication system is an asymmetric digital subscriber line system.

21. (New) The system of claim 20, wherein the initialization signal is a REVERB signal.

22. (New) The system of claim 20, wherein the initialization signal is a MEDLEY signal.

23. (New) The system of claim 20, wherein the time period corresponds to 10 frames of signals.